



SVC270

Varactor Diode

Monolithic dual Varactor Diode for FM Tuning 16V, 50nA, $C_R=1.65$, $Q=100$, MCPH3

ON Semiconductor®

<http://onsemi.com>

Features

- Twin type varactor diode having an excellent large input characteristic, for use in FM electronic tuning applications
- Small MCPH package permits SVC270-applied sets to be compact and slim
- Possible to be shipped in tape reel packaging, which facilitates automatic insertion
- High Q

Specifications

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

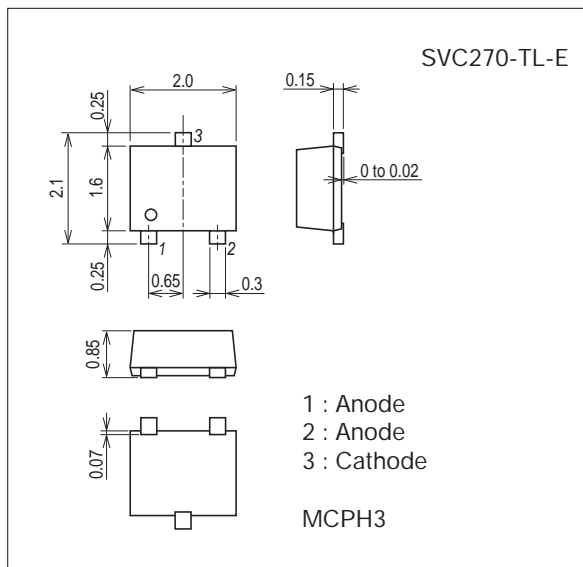
Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	V_R		16	V
Junction Temperature	T_j		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

Package Dimensions

unit : mm (typ)

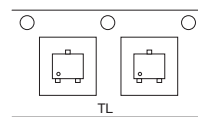
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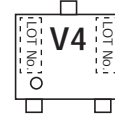
Product & Package Information

- Package : MCPH3
- JEITA, JEDEC : SC-70, SOT-323
- Minimum Packing Quantity : 3,000 pcs./reel

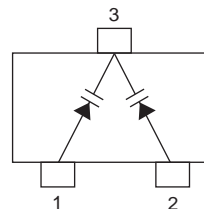
Packing Type : TL



Marking



Electrical Connection



SVC270

Electrical Characteristics at Ta=25°C

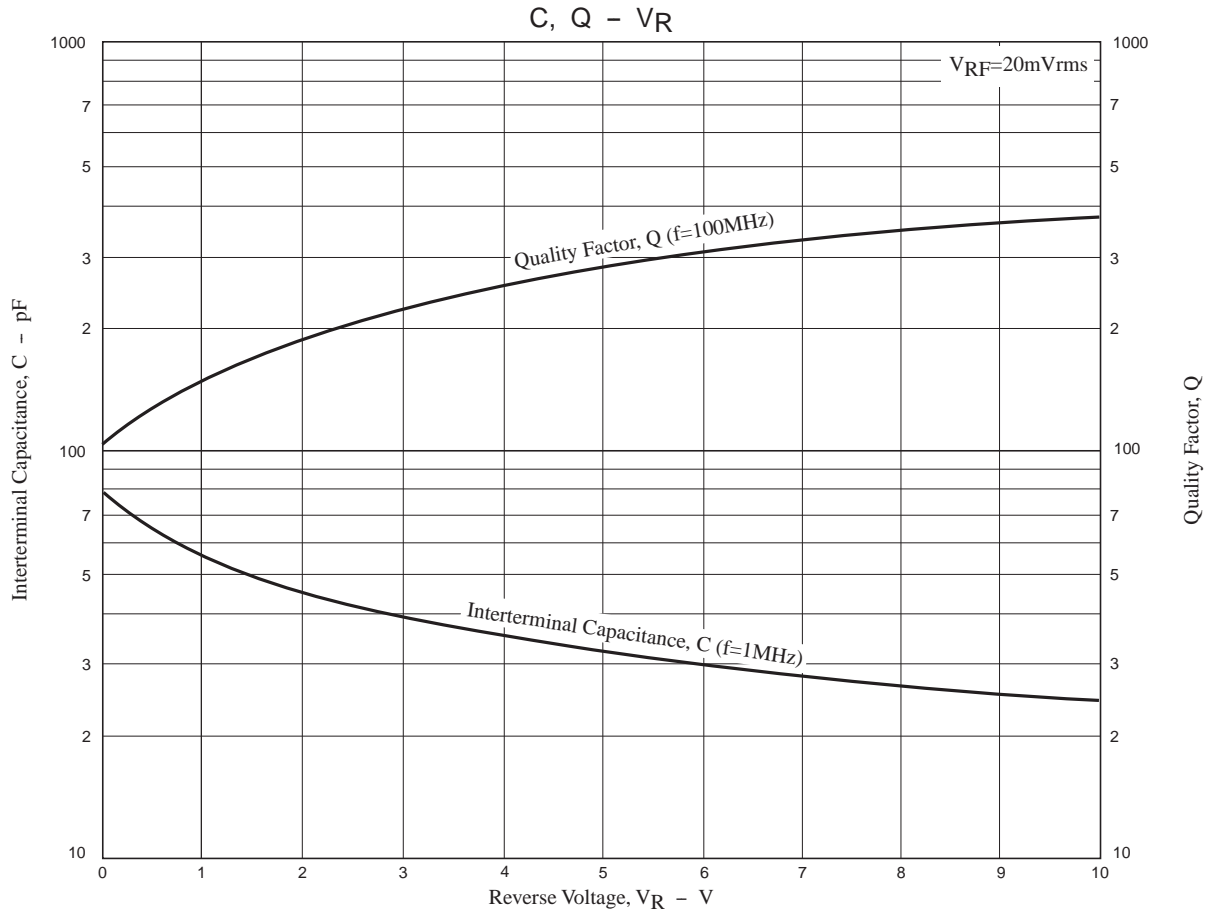
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Breakdown Voltage	V(BR)R	I _R =10μA	16			V
Reverse Current	I _R	V _R =10V			50	nA
Interterminal Capacitance*	C2.0V	V _R =2.0V, f=1MHz	44.0		46.5	pF
	C8.0V	V _R =8.0V, f=1MHz	25.1		28.2	pF
Quality Factor	Q	V _R =3.0V, f=100MHz	100			
Capacitance Ratio	C _R	C2.0V / C8.0V	1.65		1.75	
Matching Tolerance*2	ΔC _m	V _R =2.0V, f=1MHz (C _{max} -C _{min}) / C _{min} ×100			2.5	%

Note)*1 : Capacitance value per each diode.

*2 : Matching Tolerance is valid for the devices in one taping reel.

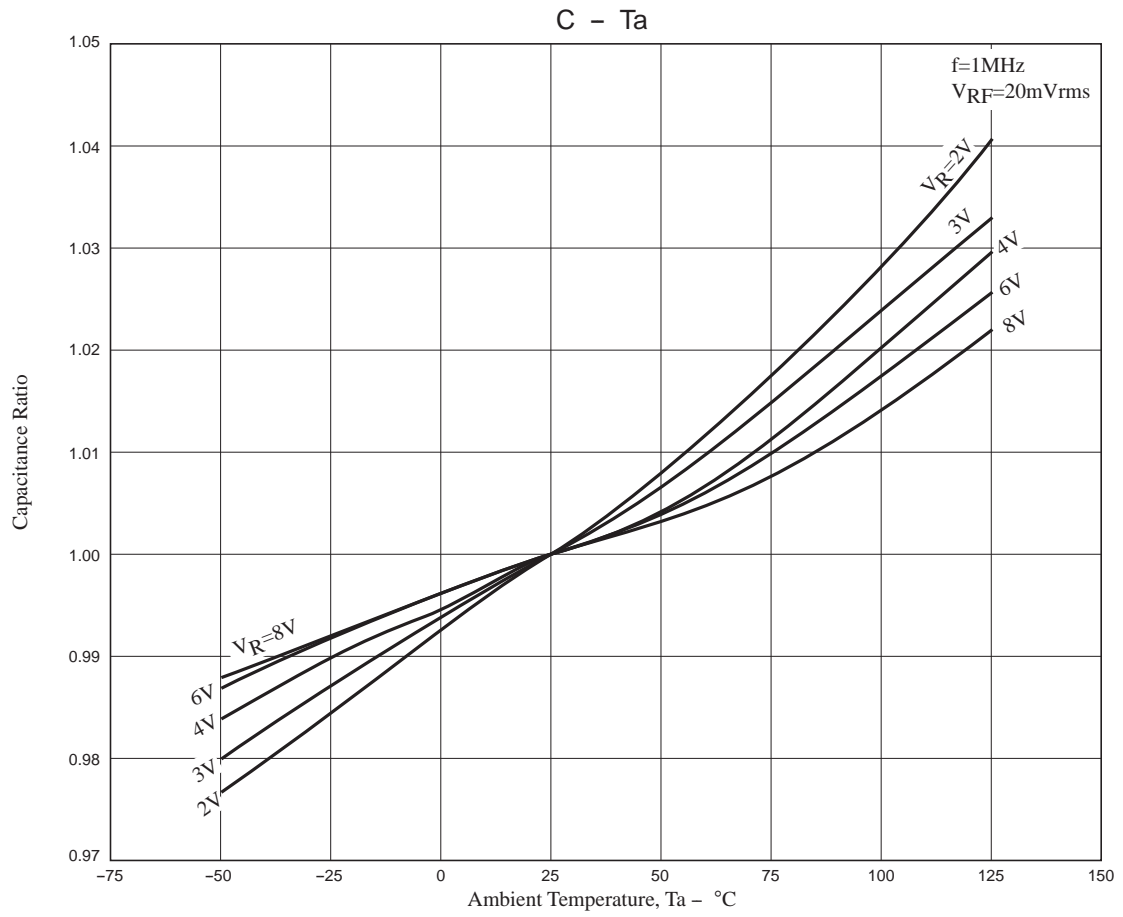
Ordering Information

Device	Package	Shipping	memo
SVC270-TL-E	MCPH3	3,000pcs./reel	Pb Free



IT10094

SVC270



Taping Specification

SVC270-TL-E

1. Packing Format

Package Name	Carrier Tape Type	Maximum Number of devices contained (pcs)			Packing format	
		Reel	Inner box	Outer box	Inner BOX (C-1)	Outer BOX (A-7)
MCPH3	MCPH3	3,000	15,000	90,000	5 reels contained Dimensions:mm (external) 183×72×185	6 inner boxes contained Dimensions:mm (external) 440×195×210

Reel label, Inner box label
(unit: mm)

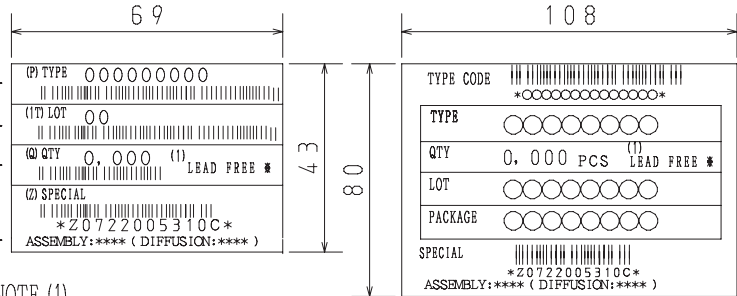
Outer box label
It is a label at the time of factory shipments.
The form of a label may change in physical distribution process.

Packing method



Type No.
LOT No.
Quantity
Origin

Reel label



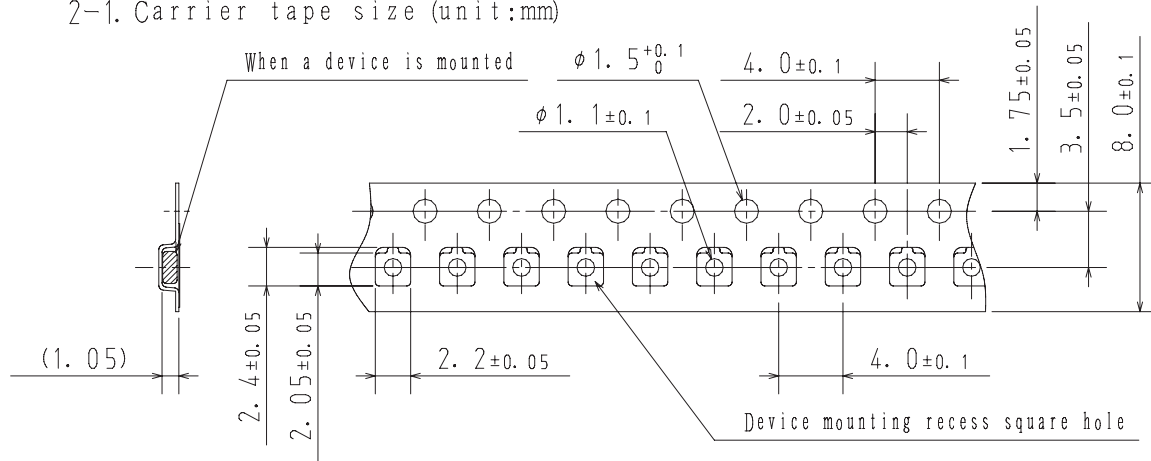
NOTE (1)

The LEAD FREE * description shows that the surface treatment of the terminal is lead free.

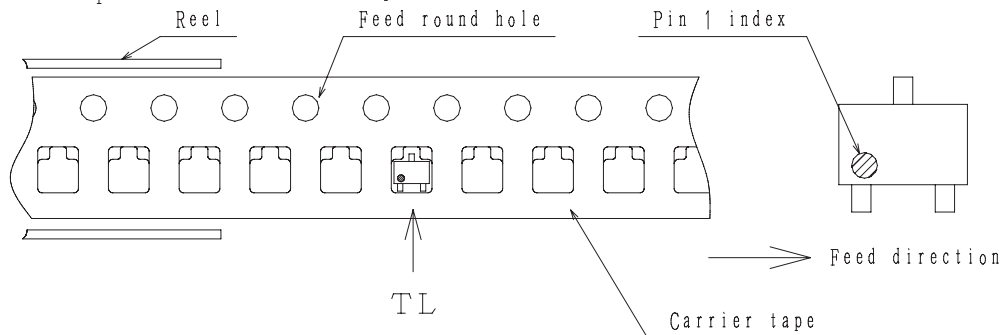
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

2-1. Carrier tape size (unit:mm)



2-2. Device placement direction



Those with pin 1 index on the feed hole side.....TL

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Outline Drawing

SVC270-TL-E



Land Pattern Example



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